

Amendment to the Claims

1-17. (Cancelled)

18. (New) An apparatus for calculating remaining capacity of a battery, the apparatus comprising a current detection section for detecting current flow in the battery, a remaining capacity calculation section for integrating the current value detected by the current detection section and calculating remaining capacity, and a memory section for storing discharge current within a specified current range;

wherein in the case of current value detected by the current detection section in a specified current range, the remaining capacity calculation section calculates remaining capacity and discharge current using a current value stored in the memory section rather than the value detected by the current detection section.

19. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 18, wherein the remaining capacity calculation section is provided with an A/D converter for converting current detection section analog values to digital values, and the remaining capacity calculation section is operable to convert current detection section analog signals to digital values via the A/D converter and to calculate remaining capacity.

20. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 18, wherein the memory section is operable to store a plurality of current ranges and a plurality of current values, and in the case of the value detected by the current detection section in a specified current range, the remaining capacity calculation section calculates remaining capacity with a current value stored in the memory section

21. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 18, wherein the specified current range and stored current value are set by information from the connected electrical equipment.
22. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 21, wherein the stored current value is specified according to operating conditions of the electrical equipment to which the battery is connected.
23. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 21, wherein the stored current value is specified according to operating mode of the electrical equipment to which the battery is connected.
24. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 21, wherein the stored current value is specified according to type of electrical equipment to which the battery is connected.
25. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 18, wherein the electrical equipment to which the battery is connected is either a portable telephone, video camera, digital still camera, or laptop computer.
26. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 18, wherein the electrical equipment to which the battery is connected is equipment which discharges via current pulses.

27. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 18, wherein the electrical equipment to which the battery is connected is provided with a plurality of component blocks, and discharge current is specified by the blocks that are activated.

28. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 18, wherein the battery is housed in a battery pack and the battery pack is provided with a memory section for storing current values.

29. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 18, wherein the electrical equipment to which the battery is attached is provided with a memory section for storing current values.

30. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 18, wherein a voltage detection circuit is provided to revise remaining battery capacity, battery voltage is detected by this voltage detection circuit, and remaining capacity calculated by the remaining capacity calculation section is revised.

31. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 18, wherein a communication processing section is provided to send remaining capacity values to electrical equipment to which the battery is attached, and remaining capacity calculated by the remaining capacity calculation section is sent to the electrical equipment by the communication processing section.

32. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 31, wherein the communication processing section is operable to send remaining capacity values to the connected electrical equipment at fixed time intervals.

33. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 31, wherein the communication processing section is operable to send remaining capacity values when a remaining capacity request signal is input from the connected electrical equipment.

34. (New) An apparatus for calculating remaining capacity of a battery as recited in claim 31, wherein the communication processing section is provided with a memory section.